International Journal of Medicine and Pharmaceutical Science (IJMPS)
ISSN(P): 2250-0049; ISSN(E): 2321-0095
Vol. 6, Issue 6, Dec 2016, 1-4




Original Article

# SPINAL EPENDYMOMA IN A YOUNG FEMALE PRESENTING WITH LATE BLADDER-BOWEL INVOLVEMENT

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***ABSTRACT***

***Ependymomas are rare tumors which arise from the ependymal cells that line the ventricles of the brain and the center of the spinal cord. It is the most common intramedullary mass in adults. Due to central location ependymoma presents with early bladder/bowel involvement, here we present an unusual case of ependymoma in a 25-yr old female of lumbo-sacral spine clinically presenting with neurological deficits but late bladder bowel symptoms (2 years after onset of weakness).MRI lumbo-sacral spine revealed ill-defined intramedullary mass lesion involving conus medullaris and filum terminale with scalloping of posterior margin of D12 to L2 vertebral bodies. Our patient is up for neurosurgical resection.***

***KEYWORDS: Ependymoma, Intramedullary Mass, Conus Medullaris, Filumterminale & Late Bladder Bowel Symptoms***

**Received:** Oct 21, 2016; **Accepted:** Nov 01, 2016; **Published:** Nov 02, 2016; **Paper Id.:** IJMPSDEC20161

## INTRODUCTION

Ependymomas arise from ependymal cells and constitute 2% of all nervous system neoplasm, 90% occur in Brain and 10% in Spinal cord[2, 7]. Intracranial ependymomas are more common in children and spinal ependymomas are more common in adults[3]It is the most common intramedullary mass in adults[4]. In fact, Ependymomas are the most common primary spinal neoplasm of the lower cord, conus, filum terminale and cauda equina[1]. Peak incidence is in the fourth decade, Males are more commonly affected than females. All case reports of ependymoma had early bladder/bowel dysfunction as a prominent feature.

## CASE REPORT

A 25-yearr old lady admitted with chief complaints of weakness in left lower limb since 5 years, stiffness in right lower limb for 3 years, variable sensory loss in bilateral lower limb for 3 years and frequency and urgency of micturition and constipation for 2 months. There were no complaints of root pain, funicular pain or any bony deformity. Upper limb and trunk were normal in neurological examination.

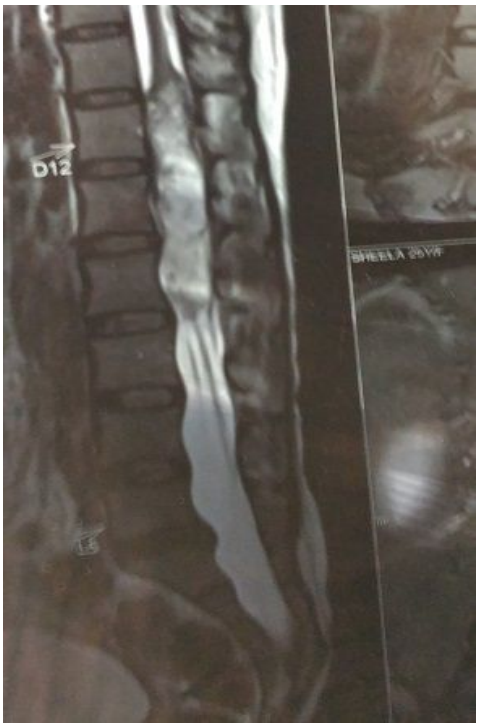


**Figure 1**

[*MRI film showing an ill-defined mass lesion involving the conus medullaris and filum terminale causing expansion of spinal canal with scalloping of posterior margin of D12 to L2 vertebral bodies*]

Left lower limb showed increased tone, thinning of thigh muscles with absent knee jerk and clonus in ankle with extensor plantar. Right lower limb had spasticity similar findings of reflexes as in left lower limb with no thinning in any muscle. Pain, temperature, light touch and vibration sense were markedly decreased in left lower limb and minimally decreased in right lower limb. Sacral sensations were markedly decreased. Early Upper motor neuron signs, late bladder involvement and absence of sacral sparing pointed towards a possible extramedullary compression of lower spinal cord. Routine investigations were normal with normal vitamin B-12 levels. On lumbo-sacral spine MRI an ill-defined intramedullary mass measuring approximately 2x3x9 cm was seen involving the conus medullaris and filum terminale, features suggestive of a myxopapillary ependymoma. Patient was referred to neurosurgery department for surgical resection of the mass.

## DISCUSSIONS

Intramedullary spinal tumors can arise anywhere in the spinal cord, from the cervicomedullary junction to the filum terminale, but they are found most frequently in the cervical cord, presumably because it contains more neural tissue than the thoracic or lumbar segments[8].Ependymomas are the most common intramedullary neoplasm. It is more common in males (65%)[9]. Pain is often the earliest symptom, classically occurring at night when the patient is supine. The pain is typically local over the level of the tumor but may radiate. Progressive weakness may occur in the arms (cervical tumors) or legs (cervical, thoracic, conus tumors).Dominant motor symptoms are commonly associated with very large ependymomas[5]. Impaired bowel, bladder, or sexual function often occurs early. They may occasionally present as a subarachnoid haemorrhage[6].Our patient presented with late bladder involvement which is unusual in cases of

intramedullary lesions. Sacral sparing which is typically seen in intramedullary lesions was absent in this case. She was referred to the neurosurgery department and is up for a surgical resection.

## CONCLUSIONS

Spinal ependymoma is located centrally in the spinal cord. It involves fibres controlling bladder and bowel at an early stage as they are located closely near the central canal. But in our case, bladder and bowel involvement presented late. So physicians should be aware of spinal ependymoma that mimics extramedullary compression with late bladder and bowel involvement.

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